

## **POLICY FOR THE USE OF TYPE "C" STEADY-BURN LIGHTS ON TRAFFIC CONTROL DRUMS**

It is the policy of the Department of Transportation that Type "C" steady-burn lights should be used as a supplement to traffic control drums only where drums are used as channelization devices and the condition of the usage requires that motorists must deviate from their expected travel path when approaching or within a work zone:

1. In transition tapers at lane-drops, lights should be used on each drum from the beginning to the end of the lane-drop taper. In the case of lane-drops where the traffic will subsequently cross through a median crossover into a two-lane two-way traffic condition, lights should be placed on each drum in the initial transition, the tangent buffer area and the drums used to direct traffic from the single lane into the crossover. Where the length of the tangent buffer area exceeds three times the taper length, lights should not be used in the tangent buffer area.
2. At temporary exit ramps, lights should be placed on each drum in the gore area of the temporary exit ramp as follows: If drums are used adjacent to the mainline, on the first 5 drums, and when drums are used along the left side of the temporary ramp, to the point where traffic rejoins the permanent ramp. A minimum of 5 drums to a maximum of 10 drums will normally be used for the latter condition.
3. Short areas of control within a work zone such as a shift of traffic onto part or all of the shoulder around bridge work or other isolated work areas. Lights should be placed on the drums used to taper or transition the traffic into the temporary path.
4. Other areas which the designer or field engineer feels necessitate the use of lights on drums to provide a higher degree of control to attain an appropriate condition for motorist safety. Urban or suburban areas where adjacent development creates a high level of ambient lighting which may reduce the effectiveness of drums with sheeting only is an example.
5. Lights should not be used on drums that are used for delineation of a lane and are placed parallel to the lane, except as provided in preceding paragraphs.
6. Steady burn lights, where used, shall be one-way/uni-directional with the light source showing only toward adjacent approaching traffic, unless there is a clear application in which two-way lights would logically benefit traffic control and safety.

**Directions for use:** The answer to each of these questions should be yes (Y) or not applicable (NA). If the answer is no (N), then modifications should be made to the plan. Refer to the text of this procedure or the region traffic section for guidance in making modifications.

No.	Design Plan Review Checklist for Work Zone Traffic Control	Y	N	N/A
	<b>GENERAL</b>			
1.	Is the vehicle path vs. the work area clearly delineated?			
2.	Can cross street traffic identify the vehicle path?			
3.	Do intersection staging details allow for construction?			
4.	Has the work zone traffic control been field reviewed during the design process? (e.g., visibility of signs, devices, crossovers)			
5.	If the speed limit is reduced from 65mph, has a temporary speed zone declaration been completed and submitted to BTO?			
	<b>CAPACITY CONSIDERATIONS</b>			
6.	Is turning traffic at intersections provided for?			
7.	Can the mainline handle the traffic volume?			
8.	Do the special provisions address work restrictions? (time of day, weekend, holidays, etc.)			
9.	Are the necessary parking restrictions shown in the plan?			
10.	Have the appropriate traffic personnel (Region, City, County, etc.) been consulted about special traffic control mitigation measures, e.g. temporary signals?			
	<b>PLAN AND SPECIAL PROVISIONS</b>			
11.	Are SDD's and typical drawings used only when appropriate for the field conditions? NOTE: If SDD's and typical drawings are not appropriate, project specific drawings must be included.			
12.	Are all of the appropriate SDD's listed in the plan?			
13.	Do the special provisions include a "Traffic" article?			
14.	Are incidental items related to traffic control provided for under a "Traffic Control" special provision?			
15.	Is "Traffic Control, Project" or "Traffic Control Surveillance and Maintenance" included in the estimate?			
16.	Are miscellaneous quantities for each WZTC item included?			
17.	Are the general notes and legends shown on the traffic control sheets?			
18.	Will the WZTC Plan be legible when reduced to "D" size?			

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	<b>WORK ZONE SIGNING</b>			
19.	Are the sign dimensions shown in the plan or indicated in the general notes?			
20.	Are warning signs which are typically manufactured in yellow, properly shown as "WO"?			
21.	Are advisory speed signs, WO 13-1, if needed, shown only in conjunction with a warning sign?			
22.	If a WO1-2 or WO1-4 sign is shown with an advisory speed (WO13-1), is the advisory speed greater than 30 MPH?			
23.	If a WO1-1 or WO1-3 sign is shown with an advisory speed (WO13-1), is the advisory speed 30 MPH or less?			
24.	Are the advance warning sign messages more specific as the driver gets closer to the beginning of the work zone?			
25.	If a width restriction less than 15 feet exists, are the appropriate width restriction signs shown?			
26.	If the project length is more than 2 miles, are "ROAD WORK NEXT XX MILE" sign shown on each end of the project?			
27.	Is the sign spacing in accordance with Table 6C-1 in Part 6 of the MUTCD?			
28.	If flags are to be installed on signs, is a 16"x16" flag size indicated?			
29.	Are flags shown on all temporary stop signs?			
30.	If existing signs need to be moved due to traffic staging, are they noted in the traffic control plan and special provisions with the appropriate bid item included?			
31.	If a milled or loose surface will exist, are the "GROOVED PAVEMENT" or "LOOSE GRAVEL" signs provided for?			
32.	If project specific fixed message signs are to be installed by the contractor, are they bid separately and are sign details included in the plan?			
33.	If Type I or Type II signs require modification or covering by the contractor, are they bid separately and are details included in the plan?			
34.	Have Region Traffic personnel been consulted about the use of portable changeable message signs?			
35.	Are individual sign codes shown on the plan?			

No.	Design Plan Review Checklist for Work Zone Traffic Control	Y	N	N/A
	<b>CHANNELIZING</b>			
36.	Are Type C lights shown on drums in "taper" areas?			
37.	Do the taper lengths match Tables 6C-3 and 6C-4 of Part 6 of the MUTCD?			
38.	For counter-directional traffic, have Region Traffic personnel been consulted about the separation devices?			
39.	Is the spacing of channelizing devices shown on the plan as specified in Section 6F.63 of Part 6 of the MUTCD?			
40.	Is a buffer space provided as shown in Table 6C-2 of Part 6 of the MUTCD?			
	<b>WORK ZONE MARKINGS</b>			
41.	When temporary pavement marking is required, is the appropriate material specified for Temporary Pavement Marking? (Temporary Pavement Marking, Paint vs. Temporary Pavement Marking, Removable Tape vs. Temporary Pavement Marking)			
42.	Is the proper width and method of payment specified for Temporary Pavement Marking? (e.g. 8" channelizing line must be a separate bid item or be paid as two 4" lines)			
43.	If existing markings conflict with traffic handling and/or staging, is removal or covering provided for in the plans? (edge lines, centerlines, lane lines, channelizing lines, stop lines, arrows, words)			
44.	When removal is necessary, are the limits for the removal of existing or staged markings shown on the plans? NOTE: Various widths of pavement marking removal should be paid for separately per line width.			